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WENDEROTH, LIND & PONACK, L.L.P.		
1030 15th Street, N.W.,		
Suite 400 East		
Washington, DC 20005-1503		

EXAMINER	
MARTINEZ, BRITTANY M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com
coa@wenderoth.com

Office Action Summary	Application No. 10/520,466	Applicant(s) HAYASHI ET AL.	
	Examiner BRITTANY M. MARTINEZ	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application

Acknowledgment is made of Applicants' arguments/remarks and amendments filed July 19, 2010. **Claims 1-3 and 5-12** are pending in the instant application, with **Claims 1-3 and 5-8** amended. **Claim 4** has been cancelled. **Claims 1-3 and 5-12** have been examined.

Claim Objections

Claims 11 and 12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicants are required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Because of the amendments to **Claims 1 and 3**, **Claims 11 and 12** now ultimately depend on the process for producing an easily dispersible cake of precipitated silica. It is unclear how a process for making a coating liquid for an ink-jet recording sheet further limits a process for producing an easily dispersible cake of precipitated silica.

Claim Rejections - 35 USC § 102/103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 1793

2. **Claim 1** is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chevallier et al. (WO98/54090) (of record), using corresponding national stage entry, US 6,468,493 B1 (of record), for citation purposes).

3. With regard to **Claim 1**, Chevallier discloses an easily dispersible cake of precipitated silica, wherein the precipitated silica has a BET specific surface area of between 185 and 250 m²/g (Chevallier, Comparative Example 1).

4. **Claim 1** is a product-by-process claim. The product is held to be obvious when the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim, although produced by a different process. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983), and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP 2113.

5. **Claim 1** is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McKeown et al. (JP 05-208808 A) (of record).

6. With regard to **Claim 1**, McKeown discloses an easily dispersible cake of precipitated silica, wherein the precipitated silica has a BET specific surface area of between 100 and 450 m²/g (McKeown, 0001; 0012; 0045-0048).

7. **Claim 1** is a product-by-process claim. The product is held to be obvious when the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim, although produced by a different

Art Unit: 1793

process. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983), and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir.1985). See also MPEP 2113.

Claim Rejections - 35 USC § 103

8. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chevallier et al. (WO98/54090 (newly cited), using corresponding national stage entry, US 6,468,493 B1 (of record), for citation purposes) as applied to **Claim 1** above, as applied in the previous Office action.
9. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over McKeown et al. (JP 05-208808 A) (newly cited) as applied to **Claim 1** above, as applied in the previous Office action.
10. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chevallier et al. (WO98/54090) (of record), using corresponding national stage entry, US 6,468,493 B1 (of record), for citation purposes) as applied to **Claim 1** above, and further in view of Alexander et al. (US 2,601,235) (of record), as applied in the previous Office action.
11. **Claims 5 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over McKeown et al. (JP 05-208808 A) (of record) as applied to **Claim 1** above, and further

Art Unit: 1793

in view of Alexander et al. (US 2,601,235) (of record), as applied in the previous Office action.

12. **Claims 5 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chevallier et al. (WO98/54090) (of record), using corresponding national stage entry, US 6,468,493 B1 (of record), for citation purposes) as applied to **Claim 1** above, and further in view of Hellring et al. (US 6,656,241 B1) (of record), as applied in the previous Office action.

13. **Claims 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over McKeown et al. (JP 05-208808 A) (of record) as applied to **Claim 1** above, and further in view of Hellring et al. (US 6,656,241 B1) (of record), as applied in the previous Office action.

14. **Claims 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chevallier et al. (WO98/54090) (of record), using corresponding national stage entry, US 6,468,493 B1 (of record), for citation purposes) in view of Alexander et al. (US 2,601,235) (of record) as applied to **Claim 5** above, and further in view of Kono et al. (US 6,417,264 B1) (of record), as applied in the previous Office action.

15. **Claims 7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over McKeown et al. (JP 05-208808 A) (of record) in view of Alexander et al. (US 2,601,235)

Art Unit: 1793

(of record) as applied to **Claims 5 and 6** above, and further in view of Kono et al. (US 6,417,264 B1) (of record), as applied in the previous Office action.

16. **Claims 6 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chevallier et al. (WO98/54090) (of record), using corresponding national stage entry, US 6,468,493 B1 (of record), for citation purposes) in view of Hellring et al. (US 6,656,241 B1) (of record) as applied to **Claim 5** above, and further in view of Kono et al. (US 6,417,264 B1) (of record), as applied in the previous Office action.

17. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over McKeown et al. (JP 05-208808 A) (of record) in view of Hellring et al. (US 6,656,241 B1) (of record) as applied to **Claims 5 and 6** above, and further in view of Kono et al. (US 6,417,264 B1) (of record), as applied in the previous Office action.

18. **Claims 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chevallier et al. (WO98/54090) (of record), using corresponding national stage entry, US 6,468,493 B1 (of record), for citation purposes) as applied to **Claim 1** above, and further in view of Kono et al. (US 6,417,264 B1) (of record) and Ichinose et al. (US 2003/0039808) (of record), as applied in the previous Office action.

19. **Claims 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over McKeown et al. (JP 05-208808 A) (of record) as applied to **Claim 1** above, and further

Art Unit: 1793

in view of Kono et al. (US 6,417,264 B1) (of record) and Ichinose et al. (US 2003/0039808) (of record), as applied in the previous Office action.

Additional Prior Art

The following prior art has not been used in a rejection, but is relevant to the instant application:

Gatti et al. (US 2004/0143050)

Cartwright et al. (US 5,637,636 A)

Chevallier et al. (US 6,335, 396 B1)

Bomal et al. (US 6,221,149 B1)

Chevallier et al. (US 6,169,135 B1)

Bomal et al. (US 6,143,066 A)

Gallis et al. (US 6,946,119 B2)

Sinclair et al. (US 6,866,711 B2)

Allowable Subject Matter

Claim 3 is allowed. The closest prior art of record (Chevallier et al. (WO98/54090) and McKeown et al. (JP 05-208808 A)) do not teach the initial reaction liquid free of an electrolyte and a mineral acid, as required by amended **Claim 3**. The process of Chevallier et al. (WO98/54090) uses sodium sulphate (an electrolyte) in the initial reaction liquid, and the process of McKeown et al. (JP 05-208808 A) uses sodium chloride (an electrolyte) in the initial reaction liquid. While the prior art suggests the

Art Unit: 1793

desirability of an electrolyte-free initial solution (See Chevallier et al. (US 6,335, 396 B1); Bomal et al. (US 6,221,149 B1); Chevallier et al. (US 6,169,135 B1); and Bomal et al. (US 6,143,066 A)), the references that disclose an electrolyte-free initial solution teach mineral acid in the initial reaction solution, or process temperatures outside of the instantly claimed range. There is no teaching, disclosure, or suggestion in Chevallier et al. (WO98/54090) or McKeown et al. (JP 05-208808 A) to modify their processes at the instantly claimed temperature, pH, and concentration with an initial reaction liquid free of both an electrolyte and a mineral acid. Nor would there be any motivation from the prior art to do so.

Response to Amendments

Acknowledgment is made of Applicants' amendment filed July 19, 2010, with respect to the Claims. Said amendment has been fully considered and is accepted.

Response to Arguments

20. Applicants' arguments filed July 19, 2010, with respect to the process of **Claim 3** (Applicants' Response, 7/19/10, p. 6-9) have been fully considered and are persuasive to the extent the previously applied references do not teach the initial reaction liquid free of an electrolyte and a mineral acid. The corresponding rejections of **Claim 3** have been withdrawn.

21. Applicants' arguments filed July 19, 2010, with respect to **Claims 1, 2 and 5-12** (Applicants' Response, 7/19/10, p. 6-9) have been fully considered, but are not

Art Unit: 1793

persuasive. **Claims 1 and 2** are product-by-process claims, and **Claims 5-12** depend on said product-by-process claims. The product is held to be obvious when the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim, although produced by a different process. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983), and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP 2113. There is no evidence of record establishing an unobvious difference between the claimed product and that of the prior art. **Claims 1, 2 and 5-12**, as product-by-process claims and claims that depend thereon, are not patentable in the absence of proof of some unobvious difference between the claimed product and that of the prior art.

22. Applicants' arguments that Chevallier and McKeown do not relate to the production of an easily dispersible cake of precipitated silica for making a coating liquid for an inkjet recording sheet (Applicants' Response, 7/19/10, p. 6-7) are not convincing. The recitation "for making a coating liquid for an ink-jet recording sheet" has not been given patentable weight because the recitation occurs in the preamble of the instant Claims. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Conclusion

23. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **BRITTANY M. MARTINEZ** whose telephone number is (571) 270-3586. The examiner can normally be reached Monday-Friday 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached at (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BMM

/Brittany M Martinez/
Examiner, Art Unit 1793

/Stanley Silverman/
Supervisory Patent Examiner, Art Unit 1793